

**IN THE CLAIMS**

1. (currently amended) A method for treating acute ~~myelogenous~~myeloblastic leukemia in a human, comprising:

determining a therapeutically effective dosage of arsenic trioxide based on the weight of a subject diagnosed with acute ~~myelogenous~~myeloblastic leukemia; and

administering the therapeutically effective dosage amount of arsenic trioxide once per day.

2. (currently amended) The method of claim 1, wherein said acute ~~myelogenous~~myeloblastic leukemia is acute ~~promyelogenous~~promyelocytic leukemia.

3. (original) The method of claim 2, wherein said arsenic trioxide is administered until bone marrow remission, which constitutes a first administration.

4. (original) The method of claim 3, further comprising a second administration of 0.15 mg/kg arsenic trioxide once per day for 25 doses.

5. (original) The method of claim 4, wherein said second administration is administered 3 to 6 weeks after said first administration.

6. (original) The method of claim 4, wherein said second administration is administered for up to five weeks.

7. (original) The method of claim 6, wherein said second administration is administered at five doses per week.

8. (original) The method of claim 4, further comprising repeating said second administration.

9. (original) The method of claim 8, wherein said second administration is repeated every 3 to 6 weeks.

10. (original) The method of claim 9, wherein said second administration is repeated until a total of between two and ten cycles of said second administration are completed.

11. (original) The method of claim 10, further comprising repeating said second administration until a total of two cycles of said second administration are completed.

12. (original) The method of claim 10, further comprising repeating said second administration until a total of ten cycles of said second administration are completed.

13. (original) The method of claim 2, wherein said arsenic trioxide is administered for up to sixty days, which constitutes a first administration.

14. (original) The method of claim 13, further comprising a second administration of 0.15 mg/kg arsenic trioxide once per day for 25 doses.

15. (original) The method of claim 14, wherein said second administration is administered 3 to 6 weeks after said first administration.

16. (original) The method of claim 14, wherein said second administration is administered for up to five weeks.

17. (original) The method of claim 16, wherein said second administration is administered at five doses per week.

18. (original) The method of claim 14, further comprising repeating said second administration.

19. (original) The method of claim 18, wherein said second administration is repeated every 3 to 6 weeks.

20. (original) The method of claim 19, wherein said second administration is repeated until a total of between two and ten cycles of said second administration are completed.

21. (original) The method of claim 20, further comprising repeating said second administration until a total of two cycles of said second administration are completed.

22. (original) The method of claim 20, further comprising repeating said second administration until a total of ten cycles of said second administration are completed.